

WHAT IS CLAIMED:

1. A parameter setting apparatus for setting a recording parameter for use in optical information recording on a recording medium, by use of any one of a plurality of setting areas previously provided on the recording medium, the apparatus comprising:

    a checking device for checking whether a special detected signal is optically detected or not from the setting areas;

    10 a retrieving device for retrieving a non-used area that is the setting area where no special detected signal is detected, of the setting areas, based on the check result of the checking device;

    a mark signal recording device for optically recording a mark signal for obtaining the special detected signal optically, in the detected non-used setting area;

    15 a setting signal recording device for recording a setting signal for setting the recording parameter, at least, in the non-used setting area excluding an area where the mark signal is recorded; and

    a setting device for setting the recording parameter by optically detecting the recorded setting signal.

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2. The parameter setting apparatus according to Claim 1, wherein

    the mark signal recording device records the mark signal at a position detected prior to the setting signal recorded in the non-used setting area.

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3. The parameter setting apparatus according to Claim 1, wherein

the mark signal recording device repeats the recording of the mark signal at a predetermined interval during the recording of the setting signal.

5 4. The parameter setting apparatus according to Claim 2, wherein  
the mark signal recording device repeats the recording of the mark signal at a predetermined interval during the recording of the setting signal.

10 5. The parameter setting apparatus according to Claim 3, wherein  
the checking device further comprises:  
a position retrieving device for retrieving a predicted position of  
the setting area on the recording medium where the special detected  
signal is to be optically detected;

15 a first moving device for moving an executing device for detecting  
the setting signal and the special detected signal, from the retrieved  
predicted position, to a retrieval starting position on the recording  
medium distant from there at least by a distance corresponding to the  
predetermined interval; and

20 a second moving device for repeating an operation of further  
moving the executing device again from the special detected signal-  
detected position on the recording medium to a position on the  
recording medium distant from there at least by a distance  
corresponding to the predetermined interval, when the special detected  
25 signal is detected while the executing device is moved from the retrieval  
starting position to the predicted position, and further moving the  
executing device to the predicted position, from a position of the

executing device after the above further moving used as the retrieval starting position, so as to check whether the special detected signal is detected or not; and

the retrieving device regards the setting area adjacent to the  
5 setting area where the special detected signal detected last is recorded as the non-used setting area, when none of the special detected signal is detected while the executing device is moved from the retrieval starting position to the predicted position.

10 6. The parameter setting apparatus according to Claim 1, wherein  
the recording parameter is intensity of an optical beam for use in  
the information recording.

15 7. The parameter setting apparatus according to Claim 1, further  
comprising

a recording device for executing the information recording by use  
of the set recording parameter.

20 8. A parameter setting method for setting a recording parameter for  
use in optical information recording on a recording medium, using any  
one of a plurality of setting areas previously provided on the recording  
medium, the method comprising:

a checking process for checking whether a special detected  
signal is optically detected or not from the setting areas;

25 a retrieving process for retrieving a non-used area that is the  
setting area where no special detected signal is detected, of the setting  
areas, based on the check result in the checking process;